

FIGURES 4(a), 4(b), 4(c) and 4(d) illustrate the magnitude of the frequency responses of the filters that implement cross-talk cancellation of the system of FIGURE 3 for four different spacings of a loudspeaker pair;

FIGURE 5 defines the geometry used to illustrate the effectiveness of cross-talk cancellation as the listener's head is moved to one side;

FIGURES 6(a) to 6(d) illustrate amplitude spectra of the reproduced signals at a listener's ears, for different spacings of a loudspeaker pair;

FIGURE 7 illustrates the geometry of the loudspeaker-microphone arrangement. Note that  $\theta$  is the angle spanned by the loudspeakers as seen from the centre of the listener's head, and that  $r_0$  is the distance from this point to the centre between the loudspeakers;

FIGURES 8a and 8b illustrate definitions of the transfer functions, signals and filters necessary for a) cross-talk cancellation and b) virtual source imaging;

FIGURES 9a, 9b and 9c illustrate the time response of the two source input signals (thick line,  $v_1(t)$ , thin line,  $v_2(t)$ ) required to achieve perfect cross-talk cancellation at the listener's right ear for the three loudspeaker spans  $\theta$  of  $60^\circ$  (a),  $20^\circ$  (b), and  $10^\circ$  (c). Note how the overlap increases as  $\theta$  decreases;

FIGURES 10a, 10b, 10c and 10d illustrate the sound field reproduced by four different source configurations adjusted to achieve perfect cross-talk cancellation at the listener's right ear at (a)  $\theta = 60^\circ$ , (b)  $\theta = 20^\circ$ , (c)  $\theta = 10^\circ$ , and (d) for a monopole-dipole combination;

FIGURES 11a and 11b illustrate the sound fields reproduced by a cross-talk cancellation system that also compensates for the influence of the listener's head on the incident sound waves. The loudspeaker span is  $60^\circ$ . FIGURE 11a plots are equivalent to those shown in FIGURE 10a. FIGURE 11b is as FIGURE 11a but for a loudspeaker span of  $10^\circ$ . In the case of FIGURE 11b, the illustrated plots are equivalent to those shown by FIGURE 10c;

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